

Installation Guide

hp StorageWorks Business Copy EVA/MA/EMA 2.3 Host Agent for hp Tru64 UNIX

Product Version: 2.3

Fifth Edition (September 2004)

Part Number: T3032-96203

The HP StorageWorks Business Copy (BC) for enterprise virtual array (EVA), modular array (MA), and enterprise modular array (EMA) installation guide describes procedures for installing, reinstalling, updating, and removing the BC host agent software.



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Business Copy EVA/MA/EMA 2.3 Host Agent for HP Tru64 UNIX Installation Guide
Fifth Edition (September 2004)
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about this guide

This installation guide supersedes previous Business Copy (BC) host agent installation guides and provides information to help you:

- Understand BC host agent installation prerequisites
- Install BC host agent for HP Tru64 UNIX® software on a host computer in a BC network
- Update BC host agent software on a host computer
- Reinstall BC host agent software on a host computer
- Remove BC host agent software from a host computer
- Contact technical support for additional assistance

“About this Guide” topics include:

- [Overview](#), page 6
- [Conventions](#), page 7
- [Getting help](#), page 8

Overview

This section covers the following topics:

- [Intended audience](#)
- [Prerequisites](#)

Intended audience

This guide is intended for customers and HP authorized service providers. In addition to being familiar with BC, readers should also be knowledgeable of BC-supported:

- SAN fabric configurations
- Host operating system environments
- Storage systems
- Multibus configurations

Prerequisites

Before installing BC host agent software, consider the following items:

- Has the BC server software been installed on a BC server platform?
If not, install the BC server software before continuing. Refer to the *HP StorageWorks Business Copy EVA/MA/EMA v2.3 Getting Started Guide*¹ (AA–RVHPA–TE) for prerequisite information and the *HP StorageWorks Business Copy EVA/MA/EMA 2.3 Server Installation Guide* (T3032–96202) for the installation procedure.
- Does the host computer on which the BC host agent software is being installed have visibility to a BC server platform in the same SAN environment? If not, refer to the *HP StorageWorks Business Copy EVA/MA/EMA 2.3 Network Administration Guide*² (T3032–96301).

1. Hereafter referred to as BC Getting Started Guide.
2. Hereafter referred to as BC Network Administration Guide.

Conventions

Conventions consist of the following:

- Document conventions
- Text symbols

Document conventions

This document follows the conventions in [Table 1](#).

Table 1: Document conventions

Convention	Element
Blue text: Figure 1	Cross-reference links
Bold	Menu items, buttons, and key, tab, and box names
<i>Italics</i>	Text emphasis and document titles in body text
Monospace font	User input, commands, code, file and directory names, and system responses (output and messages)
<i>Monospace, italic font</i>	Command-line and code variables
Blue underlined sans serif font text (http://www.hp.com)	Web site addresses

Text symbols

The following symbols may be found in the text of this guide. They have the following meanings:



WARNING: Text set off in this manner indicates that failure to follow directions in the warning could result in bodily harm or death.



Caution: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or data.

Tip: Text in a tip provides additional help to readers by providing nonessential or optional techniques, procedures, or shortcuts.

Note: Text set off in this manner presents commentary, sidelights, or interesting points of information.

Getting help

If you still have a question after reading this guide, contact an HP authorized service provider or access our web site: <http://www.hp.com>.

HP technical support

Telephone numbers for worldwide technical support are listed on the following HP web site: <http://www.hp.com/support/>. From this web site, select the country of origin.

Note: For continuous quality improvement, calls may be recorded or monitored.

Be sure to have the following information available before calling:

- Technical support registration number (if applicable)
- Product serial numbers
- Product model names and numbers
- Applicable error messages
- Operating system type and revision level
- Detailed, specific questions

HP storage web site

The HP web site has the latest information on this product, as well as the latest drivers. Access storage at: <http://www.hp.com/country/us/eng/prodserv/storage.html>. From this web site, select the appropriate product or solution.

HP authorized reseller

For the name of your nearest HP authorized reseller:

- In the United States, call 1-800-345-1518
- In Canada, call 1-800-263-5868
- Elsewhere, see the HP web site for locations and telephone numbers: <http://www.hp.com>.

Installation Preparation

1

This chapter provides preparation information for installing or updating BC host agent software. Refer to the BC Getting Started Guide for prerequisite information before installing BC.

Complete the applicable section before beginning a BC host agent software installation or update.

- [New installation preparation](#), page 10
- [Update installation preparation](#), page 12



Caution: Do not install the BC host agent before reviewing the BC server platform configuration. Installing BC in an unsupported configuration may cause the BC network to function improperly. For procedures on planning and verifying BC supported configurations, refer to the BC Network Administration Guide.

New installation preparation

Complete the following procedures before installing BC:

- [Coordinating Business Copy installation activities](#)
- [Verifying the Business Copy server configuration](#)
- [Verifying the host configuration](#)

Coordinating Business Copy installation activities

Before installing BC, ensure that:

- The BC host agent installation activities have been coordinated with users of the host; coordinating with other users prevents a disruption in host activities
- The BC host agent version being installed is compatible with the BC server for this BC network
- The BC server that supports the BC host agent installation is installed or updated before installing the BC host agent
- The BC server is running while installing the BC host agent

Note: HP strongly recommends that the BC server be running to allow the BC host agent installation software to establish communication with the BC server. If necessary, the BC host agent can be installed without the BC server running.

Verifying the Business Copy server configuration

Before installing the BC host agent, verify that the BC server:

- Has a version level that supports this host agent
- Remains running during the host agent update

Also, record the following BC server platform information for the BC host agent installation:

- Fully qualified network name (such as MyComputer.dept.corp)
- Unqualified network name (such as MyComputer)
- IP address (such as 11.22.33.44)

Make this information available during the BC host agent installation.

To view the network name and IP address of a BC server platform, browse to the BC server platform and log in. Both items are shown at the top of the home page.

When ready, go to the next section.

Verifying the host configuration

Before installing the BC host agent, verify that the host has BC-supported configurations and versions of the following:

- Host operating system version
- StorageWorks Solution Software kit
- FC HBAs and drivers

■ Multibus failover configuration with the storage controllers

This BC host agent is cluster-aware and supports only TruCluster clusters.

Refer to the BC Network Administration Guide and *HP StorageWorks Business Copy EVA/MA/EMA 2.3 Host Agent for HP Tru64 UNIX Release Notes*¹ (T3032–98202) for specific requirements.

When ready, go to “[Installing the Business Copy Host Agent](#)” on page 15 to start the installation.

1. Hereafter referred to as BC Host Agent Release Notes.

Update installation preparation

Complete the following procedures before updating to BC v2.3.

- [Downloading the update](#)
- [Backing up the update](#)
- [Coordinating Business Copy update activities](#)
- [Verifying the Business Copy server configuration](#)
- [Verifying the host configuration](#)

Downloading the update

The BC host agent update is available only by download from the Business Copy product page web site.

1. Visit <http://h18000.www1.hp.com/products/storage/software/bizcopyeva/index.html>.
2. Click **software & drivers**.
3. Under **technical support - hp StorageWorks business copy eva**, click the **download software and drivers** link.
4. Under **download software & drivers - specify product name**, click the **business copy upgrade ui eva v2.3 med/doc kit** to access the update download page.
5. Save the update to the host computer.

When ready, go to the next section.

Backing up the update

After downloading the update file, HP recommends backing up the update file and the files extracted from the web site to CD-ROMs that you can keep in one or more locations. This ensures that BC installations and updates can be performed quickly in the future without downloading files again.

HP recommends making the following CD-ROMs.

- One for archival purposes
- One to keep with the BC server platform containing the BC server software
- One or more to retain with BC hosts

To make a CD-ROM backup:

1. Extract the individual files from the download file (BC_2.3_Update.exe).
Do not extract deeper than the first level.
2. Burn a CD-ROM copy of the download file and extracted files.
3. Label each CD-ROM with the month and year. For example:
"Business Copy v2.3—September 2004 Update."

When ready, go to the next section.

Coordinating Business Copy update activities



Caution: If not properly planned and coordinated, updating a BC host agent can result in reduced operational capabilities and failure of BC jobs.

Before installing BC, ensure that:

- The BC host agent update activities have been coordinated with users of the host; coordinating with other users prevents a disruption in host activities
- The BC host agent version being updated is compatible with the BC server for this BC network
- No BC jobs involving the host are running or “undoing” or are scheduled to run or “undo” during the update installation period
- The BC server that supports the BC host agent installation is installed or updated before updating the BC host agent
- The BC server is running while updating the BC host agent

Note: HP strongly recommends that the BC server be running to allow the BC host agent installation software to establish communication with the BC server. If necessary, the BC host agent can be installed without the BC server running.

When ready, go to the next section.

Verifying the Business Copy server configuration

Before updating the BC host agent, verify that the BC server:

- Has a version level that supports this host agent
- Remains running during the host agent update

Also, record the following BC server platform information for the BC host agent installation:

- Fully qualified network name (such as MyComputer.dept.corp)
- Unqualified network name (such as MyComputer)
- IP address (such as 11.22.33.44)

Make sure to have this information available during the BC host agent installation.

To view the network name and IP address of a BC server platform, browse to the BC server platform and log in. Both items are shown at the top of the home page.

When ready, go to the next section.

Verifying the host configuration

Before updating the BC host agent, verify that the host has BC-supported configurations and versions of the following:

- Host operating system version
- StorageWorks Solution Software kit

- FC HBAs and drivers
- Multibus failover configuration with the storage controllers

This BC host agent is cluster-aware and supports only HP TruCluster clusters.

Refer to the BC Network Administration Guide and BC Host Agent Release Notes for specific requirements.

When ready, go to “[Installing the Business Copy Host Agent](#)” on page 15 to start the update.

Installing the Business Copy Host Agent

2

This module assumes that “[Installation Preparation](#)” on page 9 has been read and all appropriate steps have been successfully completed. Complete the following procedures, in sequence, to install a BC host agent:

1. [Preparing for installation](#), page 16
2. [Starting the installation](#), page 17
3. [Completing the installation](#), page 29

Preparing for installation

Installation preparation involves one of two methods: CD-ROM or Web download. Use one of these methods to prepare for installing the BC host agent software.

- [CD-ROM method](#)
- [Web download method](#)

Note: To install BC successfully, the host computer must have at least 45,394,868 bytes of free disk space.

CD-ROM method

1. Locate the BC host agent CD-ROM.
 2. On the host computer, open a terminal window and log on as a super-user.
 3. Insert the CD-ROM into the CD-ROM drive.
 4. Navigate to the Tru64 UNIX folder on the CD-ROM.
The folder contains an executable file named `bc_23_tru64_ha_install.bin`.
 5. Copy the `bc_23_tru64_ha_install.bin` file to the host computer, if necessary.
- When ready, go to “[Starting the installation](#)” on page 17.

Web download method

1. On the host computer, open a terminal window and log on as a super-user.
2. Locate either the CD-ROM made from the BC update download (see “[Update installation preparation](#)” on page 12) or the Tru64 UNIX download file (`bc_23_tru64_ha_install.bin`) on the host computer or LAN.
3. Copy the `bc_23_tru64_ha_install.bin` file to the host computer, if necessary.
4. On the host computer, navigate to the folder containing the `bc_23_tru64_ha_install.bin` file.

When ready, go to the next section.

Starting the installation

BC provides two installation methods for HP Tru64: command console and GUI.

Command console installation method

Complete the following procedure to install the BC host agent software.

Note: During the installation procedure, press **Enter** to choose the default response. To return to a previous step, enter `back`. To exit the installation script at any time, enter `quit`.

Press **Enter** as necessary to scroll through lengthy text screens.

This procedure illustrates an installation on a host that is part of an HP TruCluster cluster. A standalone host installation omits all references to clusters.

1. Enter `sh ./bc_23_tru64_ha_install.bin` to start the installation script.

General information displays as the installation script unpacks, followed by BC-specific information.

The default installation folder for BC is `/usr/opt/CPQevm`.

Note: Unpacking of the Java™ Runtime Environment (RTE) segment can take three to five minutes.

```
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

Preparing CONSOLE Mode Installation...

=====
Business Copy EVA/MA/EMA Host Agent v2.3(created with InstallAnywhere by Zero G)
=====

=====
Introduction
-----

.
.
.
PRESS <ENTER> TO CONTINUE:
```

Figure 1: Initiating the installation script

2. Press **Enter** to continue.

```

=====
BC License Agreement
-----

Installation and use of Business Copy requires acceptance of the following License
Agreement:

Business Copy EVA/MA/EMA License Agreement

Attention Notice
IMPORTANT: READ CAREFULLY BEFORE USING THIS PRODUCT.
.
.
.
DO YOU ACCEPT THE TERMS OF THIS LICENSE AGREEMENT? (Y/N) :

```

Figure 2: License agreement

3. Carefully review the BC license agreement.
4. Enter `y` or `yes` to agree to these terms and continue the installation; enter `n` or `no` to exit the installation script.

Entering `yes` provides a list of BC operational prerequisites.

Note: HP recommends exiting the installation if BC prerequisites have not been met, or if doubts exist as to whether the requirements are met. Take the necessary action to make sure that these prerequisites are met and then restart the installation.

```

=====
BC Prerequisites
-----

Welcome to the HP StorageWorks Business Copy EVA/MA/EMA Host Agent installation script.
This script will install BC on this computer.

Do not proceed until you have:
.
.
.
PRESS <ENTER> TO CONTINUE:

```

Figure 3: BC prerequisites

Caution: Failure to properly address BC pre-installation requirements and compatibility considerations can lead to reduced operational capability and failure of BC jobs.

5. Press **Enter** to continue; enter `quit` to exit the installation script.
- Initially, a progress bar is displayed, followed by a BC server platform name question.

Note: For reinstallations, the previous BC server platform name displays as the default.

```
=====
BC Server Platform Name
-----

Enter the BC server platform fully qualified name, unqualified name, or IP address:
BC server platform Name (DEFAULT: <BC_server_platform_name/IP>):
```

Figure 4: BC Server Platform Name

6. Enter the fully qualified name, unqualified name, or IP address of the BC server platform that supports this BC host agent.

Note: The BC server platform name or IP address is required to establish network communication between BC host agents and the BC server.

Note: HP recommends using the fully qualified name when entering BC server platform name information.

After entering the BC server platform name or IP address, a check is performed to verify communication. This check allows an incorrect BC server platform name to be corrected and provides the opportunity to continue the BC host agent installation in the event that the LAN is down or the BC server platform is offline.

- If this check fails, [Figure 5](#) displays.

```
=====
Unable to Ping Host
-----

Unable to ping the BC server platform on this network. You can add the BC server platform
name to the sb.ini file at a later date. Do you want to keep this BC server platform name
and continue the installation?

->1- Yes
   2- No

ENTER THE NUMBER OF THE DESIRED CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
```

Figure 5: Unsuccessful ping to BC server platform option

- Entering a 1 or pressing **Enter** continues the installation using the BC server platform name entered.
- Entering a 2 displays [Figure 4](#), continue with [step 6](#).
- If this check succeeds, [Figure 6](#) displays.

```
=====
Start BC Daemons
-----

Would you like to start the BC Daemons after the installation is complete? If you are
unsure as to whether or not to start the BC Daemons after the installation, please refer
to the BC Network Administration Guide.

->1- Yes
   2- No

ENTER THE NUMBER OF THE DESIRED CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
```

Figure 6: Start BC Daemons

7. Enter **1** or press **Enter** to start the BC daemons after the installation is complete; enter **2** to prevent the BC daemons from starting after the installation is complete.

```
=====
Pre-Installation Summary
-----

Please review the following before continuing:

Product Name:
  Business Copy EVA/MA/EMA Host Agent v2.3

Install Folder:
  /usr/opt/CPQevm

BC Server Platform:
  <BC_server_platform_name/IP>

Disk Space Information (for Installation Target):
  Required: 45825577 bytes

PRESS <ENTER> TO CONTINUE:
```

Figure 7: Pre-Installation Summary

8. Press **Enter** to continue; enter `quit` to exit the installation if the pre-installation information is incorrect.

The BC host agent software installation takes place.

```
=====
Additional Information
-----

To reinstall or remove the Business Copy software from this host computer, refer to the
BC Host Agent Installation Guide.

Please consult the BC Host Agent Release Notes before using Business Copy.

To submit comments regarding BC, send an email to BCFeedback@hp.com.

PRESS <ENTER> TO CONTINUE:
```

Figure 8: Additional Information

9. Carefully review the Additional Information provided.
10. Press **Enter** to continue.

```
=====
Installation Complete
-----

Congratulations. Business Copy EVA/MA/EMA Host Agent v2.3 has been successfully
installed to:

  /usr/opt/CPQevm

PRESS <ENTER> TO EXIT THE INSTALLER:
```

Figure 9: Installation Complete

11. Press **Enter** to complete the installation.

The BC host agent software is installed. This new BC-enabled host can now communicate with the BC server and participate in BC jobs. Refer to the BC Host Agent Release Notes before using BC.

GUI installation

Complete the following procedure to install the BC host agent software.

Note: If installing BC in GUI mode, set the host computer color depth to at least 256 colors.

Note: Do not remove the BC host agent CD-ROM from the CD drive until the installation is complete. Removing the CD-ROM before the installation is complete may cause the installation to fail or BC to function improperly.

1. Enter `./bc_23_tru64_install.bin -i gui` to start the installation.

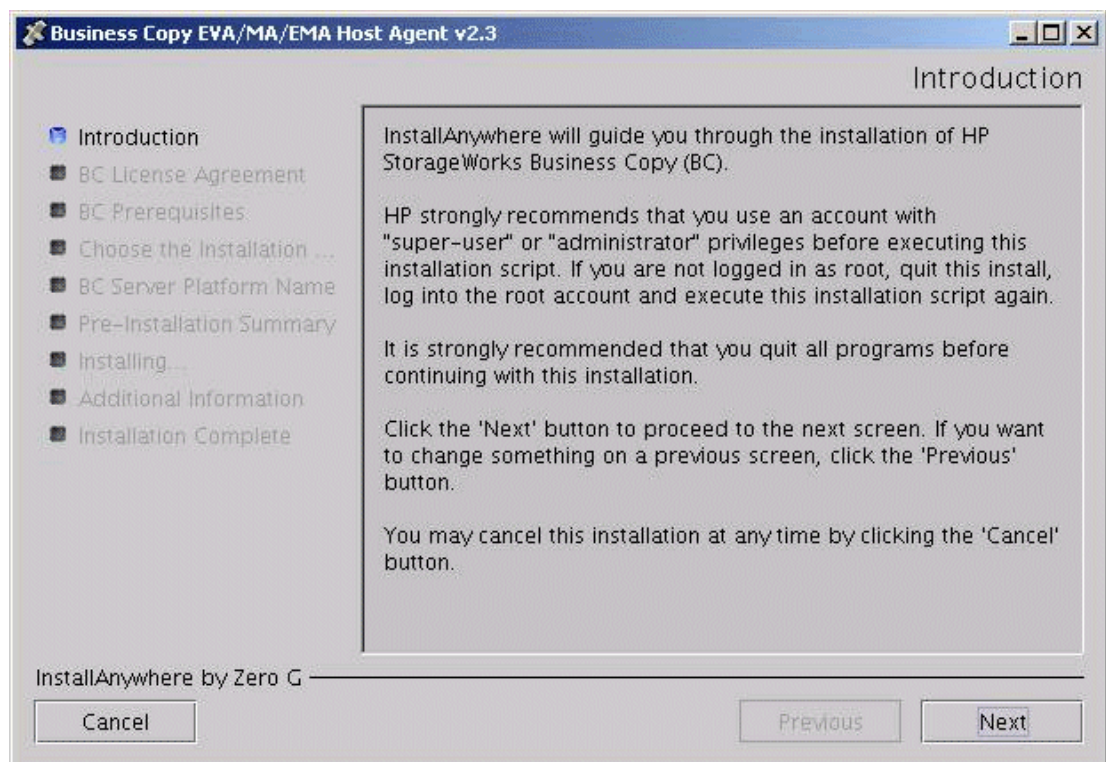


Figure 10: Introduction

2. Click **Next**.

Note: Click **Cancel** at any time to exit the installation.

3. Carefully review the BC License Agreement before continuing with the installation.

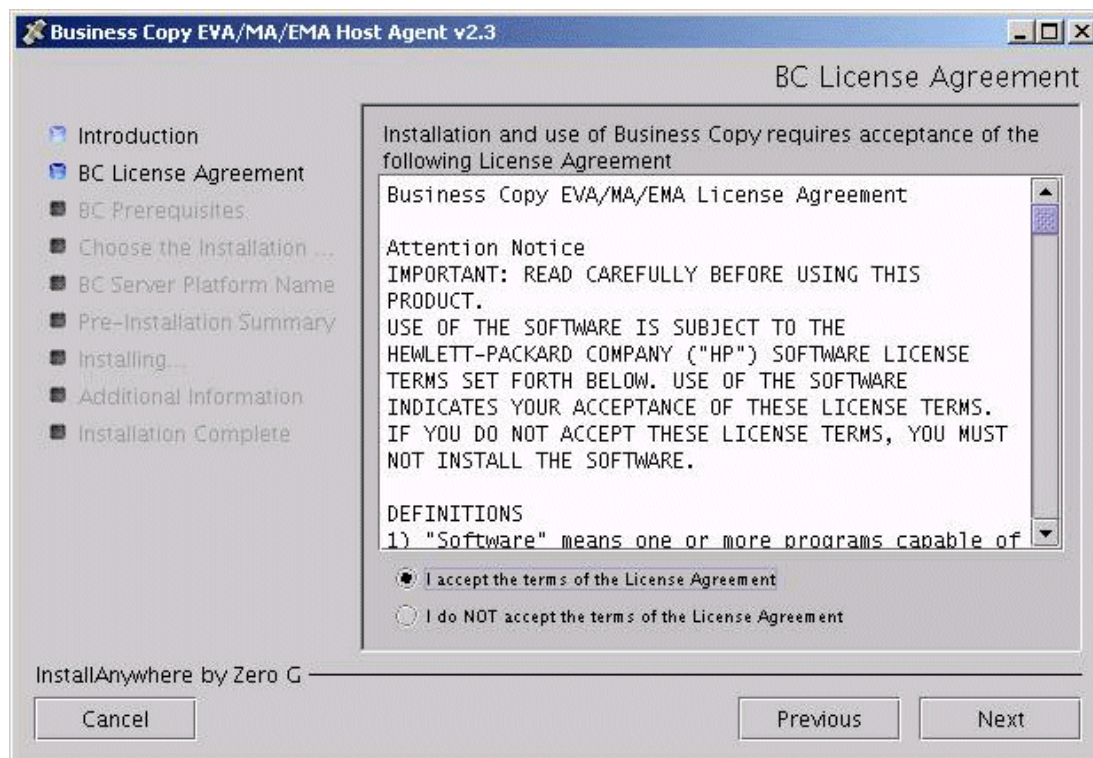


Figure 11: BC License Agreement

Note: To continue installing the BC host agent software, the terms in the agreement must be accepted.

4. Click **I accept the terms of the License Agreement** to continue the installation.
5. Click **Next**.

Review the prerequisites and become familiar with each one. This window provides a reminder of items to verify or perform before continuing the BC host agent installation. Refer to the BC Getting Started Guide for detailed prerequisite information.

Note: HP recommends exiting the installation if BC prerequisites have not been met or doubts exist as to whether the prerequisites are met. Take the necessary action to make sure that the prerequisites are met and restart the installation.

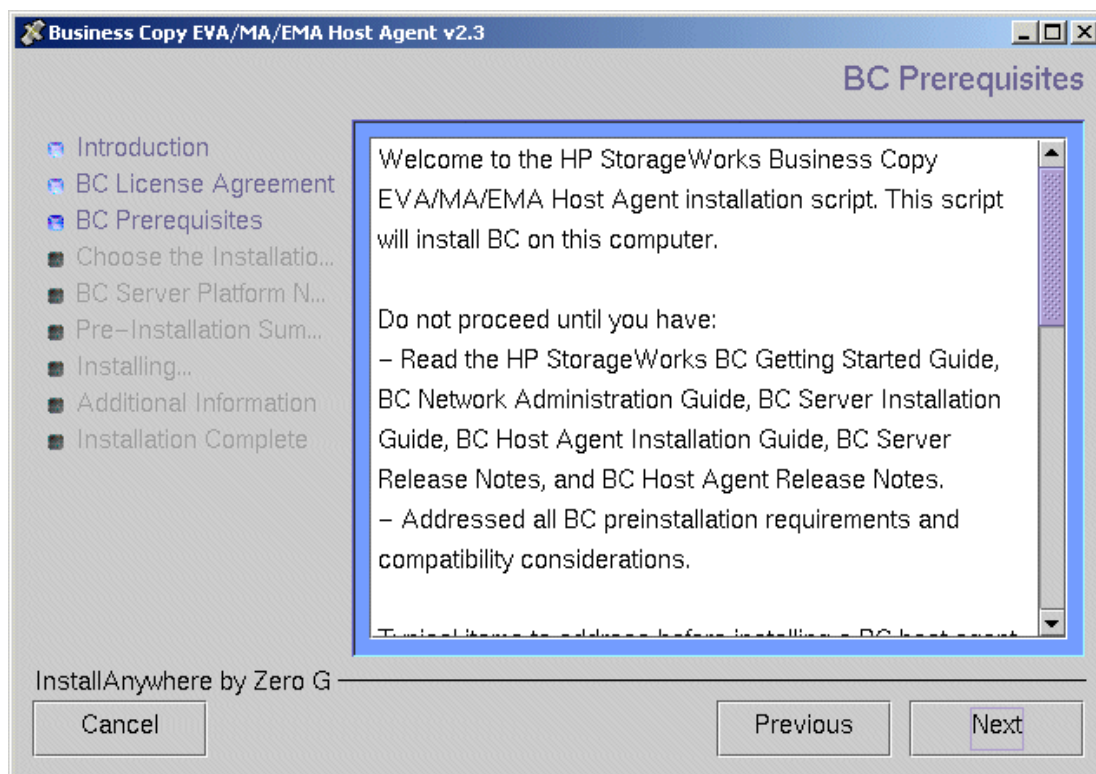


Figure 12: BC Prerequisites



Caution: Failure to properly address BC preinstallation requirements and compatibility considerations can lead to reduced operational capability and failure of BC jobs.

6. If the prerequisites are met, click **Next**.

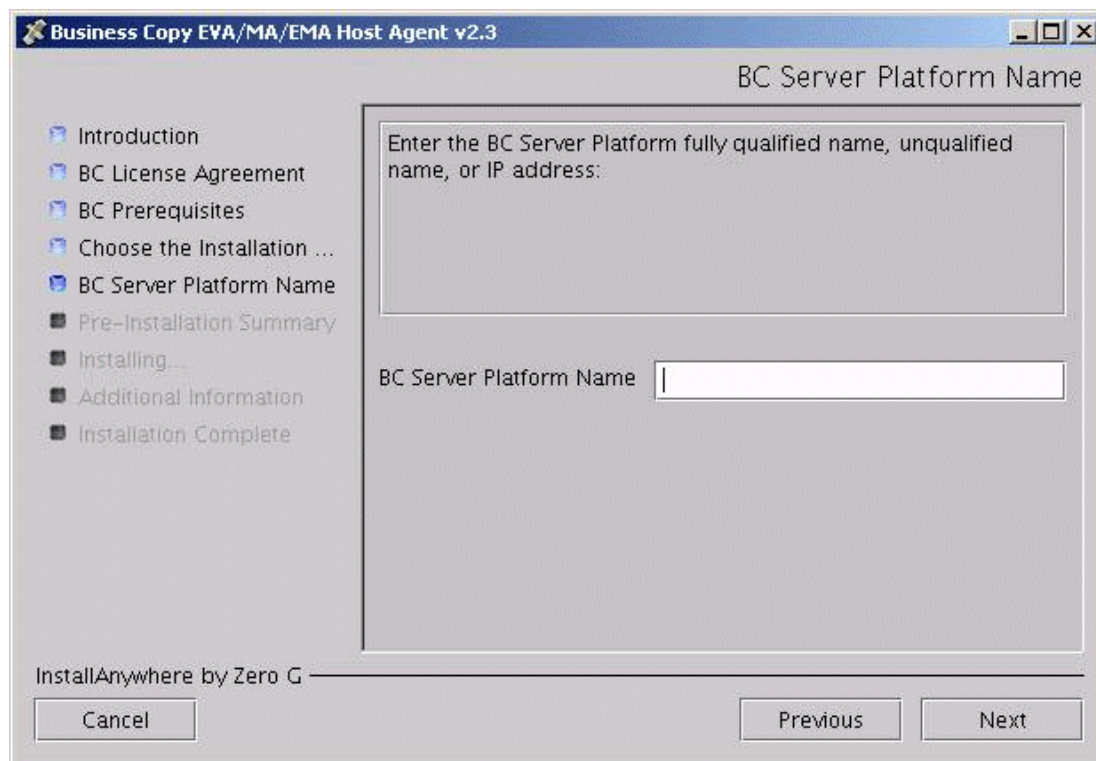


Figure 13: BC Server Platform Name

Note: For reinstallations, the previous BC server platform name displays as the default.

7. Enter the fully qualified name, unqualified name, or IP address of the BC server platform that supports this BC host agent.

Note: The BC server platform name is required to establish network communication between this BC host agent and the BC server.

8. Click **Next**.

A check is performed to verify communication. This check allows an incorrect BC server platform name to be corrected and also provides the opportunity to continue the BC host agent installation in the event that the LAN is down or the BC server platform is offline.

- If this check fails, [Figure 14](#) displays.



Figure 14: BC Server Platform Name failure message

- Click **Yes** to continue the installation using the BC server platform name entered in [step 7](#).
- Click **No** to display [Figure 13](#) and continue the installation at [step 7](#).
- If this check succeeds, [Figure 15](#) displays.

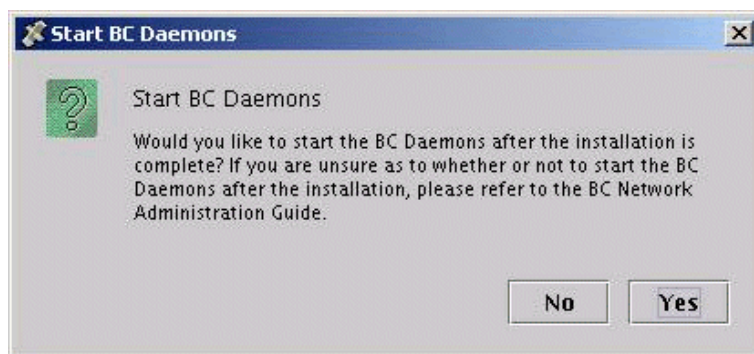


Figure 15: Start BC Daemons

9. Click **Yes** to start BC daemons; click **No** to defer BC daemons.

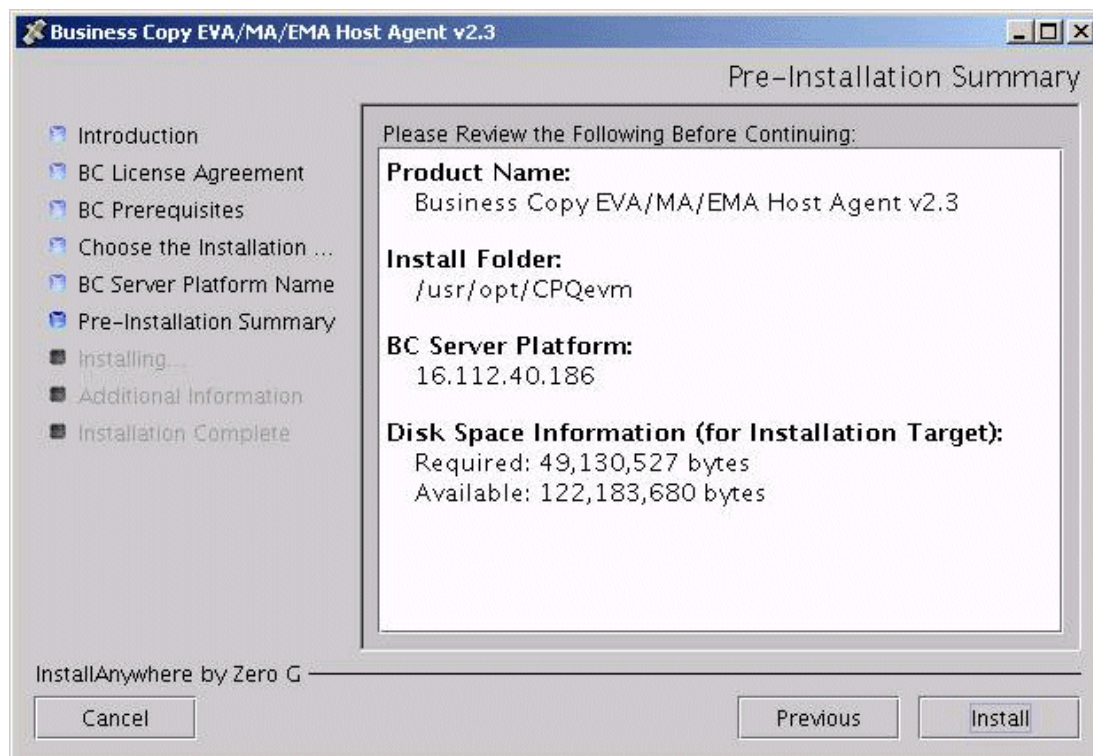


Figure 16: Pre-Installation Summary example

10. If the pre-installation summary information is:

- Correct, click **Install**.
- Not correct, click **Previous** or **Cancel**.

An installation progress window briefly displays as the BC host agent software installs.

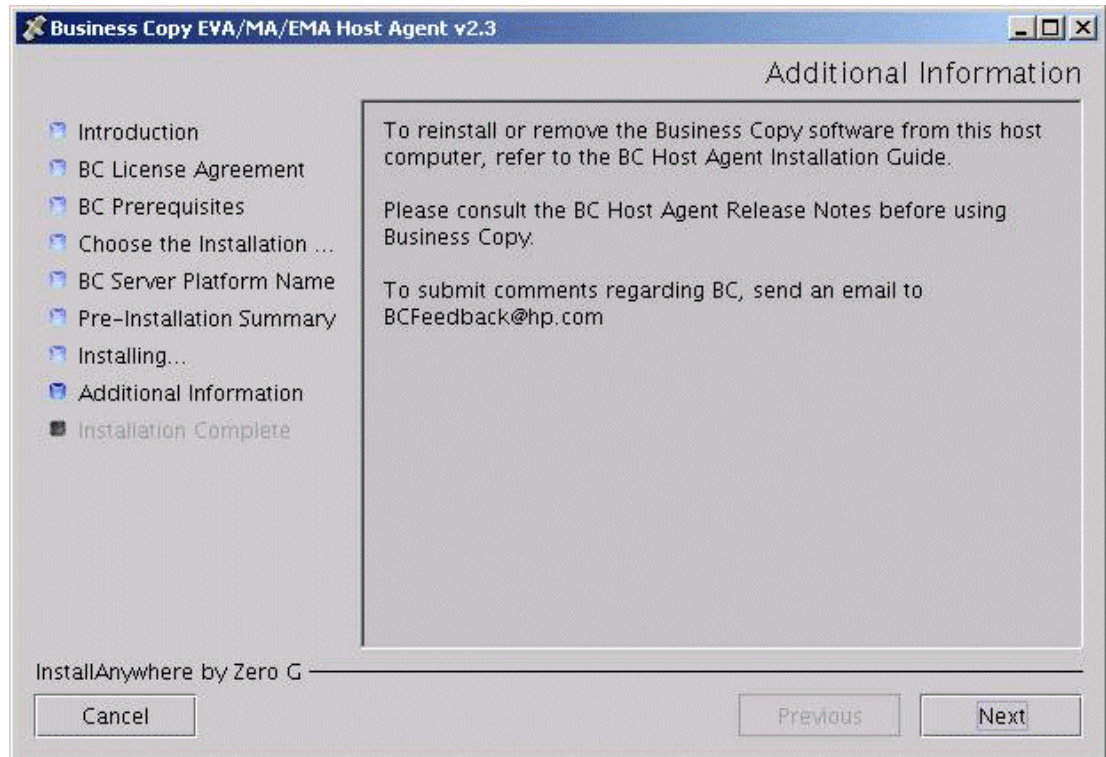


Figure 17: Additional Information

11. Click **Next** after reviewing the additional information.

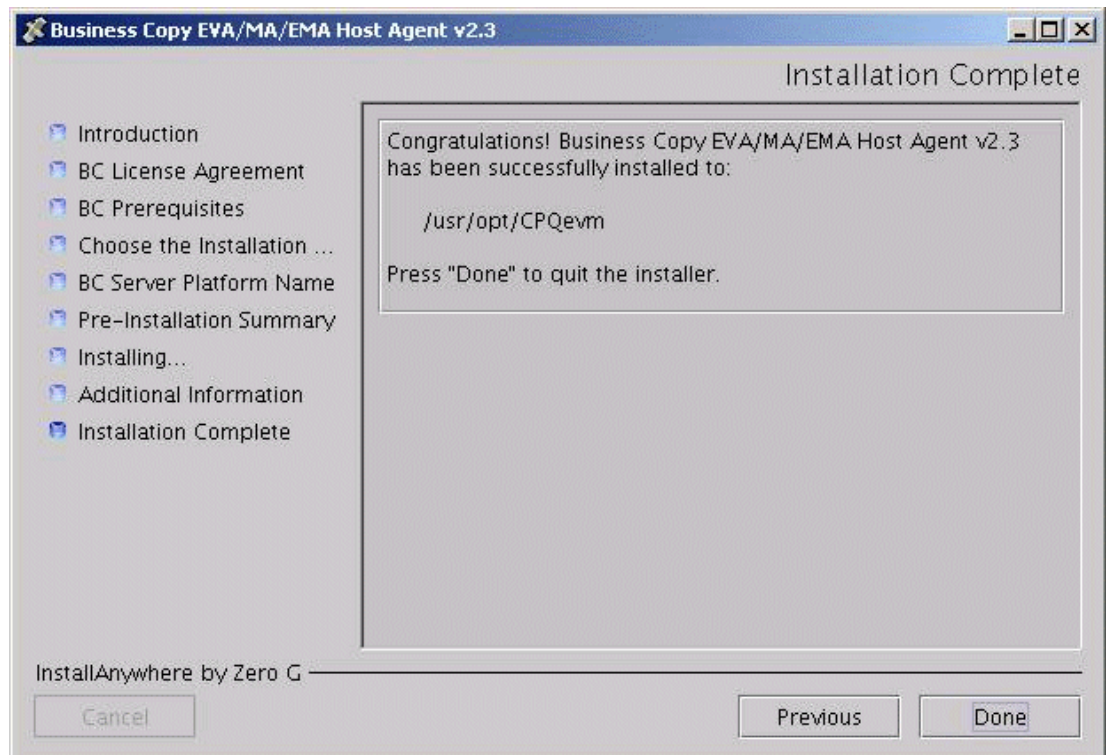


Figure 18: Install Complete

12. Click **Done**.

The BC host agent software is installed. This new BC-enabled host can now communicate with the BC server and participate in BC jobs. Refer to the BC Host Agent Release Notes before using BC.

Completing the installation

If the BC host agent was started during installation, HP recommends browsing to the BC network and verifying that the BC host agent has been recognized. Otherwise, perform the verification after manually starting the host agent.

Completing the installation topics include:

- Reusing customized OSVM.ini settings following a BC host agent update or reinstallation
- Manually starting and stopping the BC host agent
- Browsing to the Business Copy network
- Verifying that the Business Copy host agent is recognized
- System files modified during installation and removal

Reusing customized OSVM.ini settings following a BC host agent update or reinstallation

If an existing BC network used customized settings in the `OSVM.ini` file, these customized attributes can be reapplied following a BC host agent update or reinstallation.

Note: During the BC host agent installation, the previous `SB.ini` file is automatically updated with changes required for BC v2.3 operations.

During the BC host agent installation, the previous `OSVM.ini` file is saved as `OSVM.ini.bak` to allow access to the previous customized settings. If desired, reapply the customized settings by migrating them from the `OSVM.ini.bak` file to the new `OSVM.ini` file.

Manually starting and stopping the BC host agent

Refer to the BC Network Administration Guide for the procedures to manually start or stop the daemons on a BC host agent.

Browsing to the Business Copy network

To browse to the BC network, the browsing computer must have a BC-supported browser with an RTE installed.

Refer to the BC Network Administration Guide and *HP StorageWorks Business Copy EVA/MA/EMA 2.3 Server Release Notes* (T3032–98201) for details.

Verifying that the Business Copy host agent is recognized

To verify that a BC host agent is being recognized by the BC server platform, complete the following procedure:

1. Browse to and log in to the BC server platform.
The BC GUI displays. Refer to the BC Network Administration Guide, if necessary, to access the BC GUI.
2. Click **Help**.

3. Click **About Business Copy**.
Verify that the BC version number is 2.3.
4. Click **Resources**.
5. Review the Resources page to verify that the host is included in the host resources display.
A successful installation displays the BC host agent on this page.
6. Continue to the next host-specific BC Host Agent Installation Guide to add other BC host agents to this BC network or to update existing agents.

System files modified during installation and removal

During BC host agent installation, the following host system file is modified:
`/etc/services`.

Sample entries added to the `/etc/services` file include:

```
switchboard 4991/tcp  #CPQevm switchboard application
bdctrvc     4995/udp  #CPQevm broadcast receiver application
```

During the BC host agent removal process, this file is modified again to remove the BC entries added during the installation process.

Reinstalling the Business Copy Host Agent

3

Situations may arise where a change in the BC network requires a change to BC server information stored by the BC host agent. For example:

- The BC server platform is renamed or replaced.
- The BC server platform IP address changes.
- The BC server software is moved to a different BC server platform.
- A network name changes.
- A host computer is reassigned for use with a different BC server platform.

For these situations, reinstalling the BC host agent may be appropriate.



Caution: Make sure that all personnel involved with using storage systems associated with this BC environment are informed of the impending BC reinstall. If not properly planned and coordinated, reinstalling a BC host agent while the host agent is involved in running a BC job can result in reduced operational capabilities and loss of data.

Two reinstallation methods exist:

- One-step reinstallation—With this method, reinstall the BC host agent using “[Installing the Business Copy Host Agent](#)” on page 15. When prompted, allow the installation script to remove the existing host agent, and then install the BC host agent.
- Two-step reinstallation—With this method, remove the BC host agent using “[Removing the Business Copy Host Agent](#)” on page 33. Then reinstall the BC host agent using the procedure in “[Installing the Business Copy Host Agent](#)” on page 15.

Removing the Business Copy Host Agent

4

Removing BC host agent software involves the following major steps:

1. [Coordinating removal activities](#), page 34
2. [Starting the removal](#), page 35
3. [Completing the removal](#), page 38

Coordinating removal activities

Removing a BC host agent requires coordination to make sure that the software is removed cleanly from the host.



Caution: Make sure that all personnel using storage systems associated with this BC environment are informed of the impending BC removal. Removing a BC host agent while the host agent is running a BC job can result in reduced operational capabilities and loss of data.

Ensure that:

- No BC jobs that involve the host are running or “undoing” during the removal
- No BC jobs that involve the host are scheduled to run or “undo” during the removal
- Removal activities have been coordinated with BC users and other operations

Be aware that:

- Stopping a BC host agent prevents the host computer from being recognized by the BC network
- Stopping a BC host agent prevents any jobs involving that host from running successfully

When ready, go to the next section.

Starting the removal

BC provides two removal methods for HP Tru64: command console and GUI.

Command console removal method

Complete the following procedure to remove the BC host agent software from a host.

Note: This procedure illustrates an installation on a host that is part of a cluster. A standalone host installation omits all references to clusters.

1. Open a terminal window and log on as a super-user.
2. Change the working folder to the one containing the BC host agent.
The default installation folder is `.../usr/opt/CPQevm/bin`.
3. Enter `./delete.sh` to initiate the removal script.

Note: For cluster environments, removing the BC host agent from one cluster node removes BC from the cluster.

```
Business Copy daemons stopped.
.
.
.
Deleting "HP StorageWorks Business Copy Host Agent v2.3.0.0" (CPQevm230).

=====
Business Copy EVA/MA/EMA Host Agent v2.3(created with InstallAnywhere by Zero G)
-----

=====
Uninstalling...
-----
.
.
.

=====
Uninstall Complete
-----

All items were successfully uninstalled
```

Figure 19: BC removal status

The command prompt returns when the BC host agent removal is complete.

GUI removal method

Complete the following procedure to remove the BC host agent from a host.

1. On the host computer, open a terminal window and log on as a super-user.
2. Change the working folder to the one containing the BC host agent.
The default installation folder is `.../usr/opt/CPQevm/bin`.
3. Enter `./delete.sh gui` to initiate the removal.

Note: Click **Cancel** at any time to exit setup.

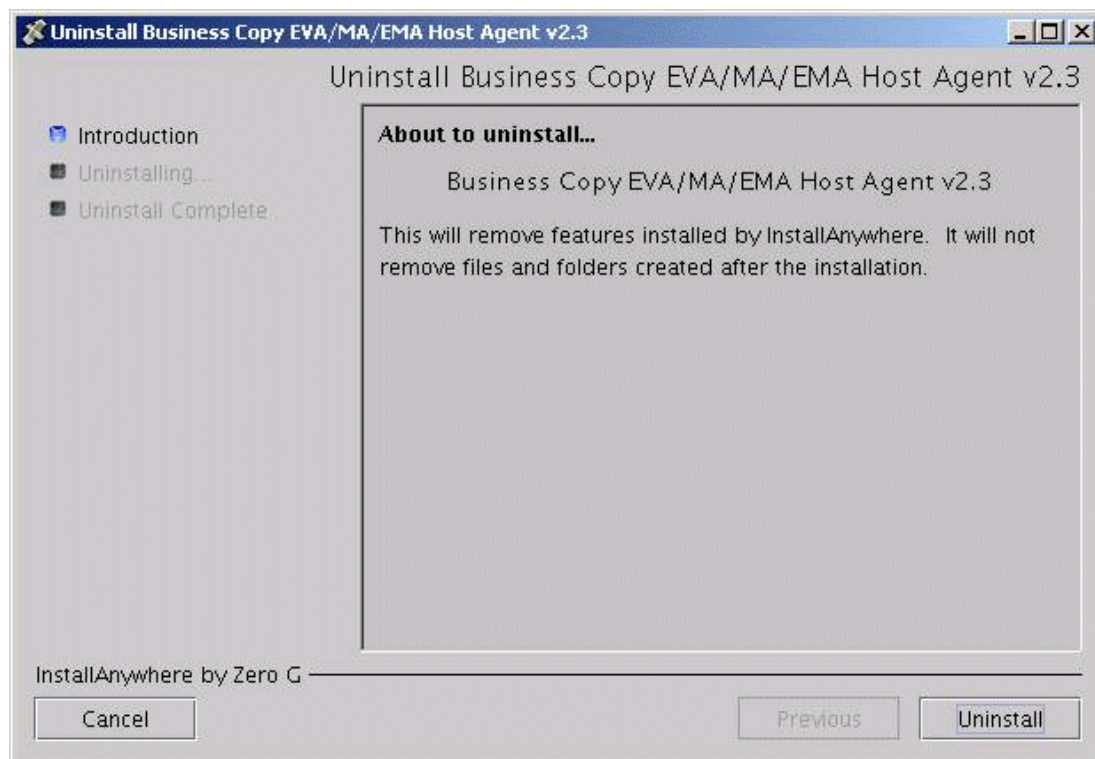


Figure 20: Uninstall Business Copy Host Agent

4. Click **Uninstall** to uninstall the BC host agent software from the host.
A Setup Status window is briefly displayed during the removal of BC files. File removal can take anywhere from a few seconds to several minutes. No action is required.

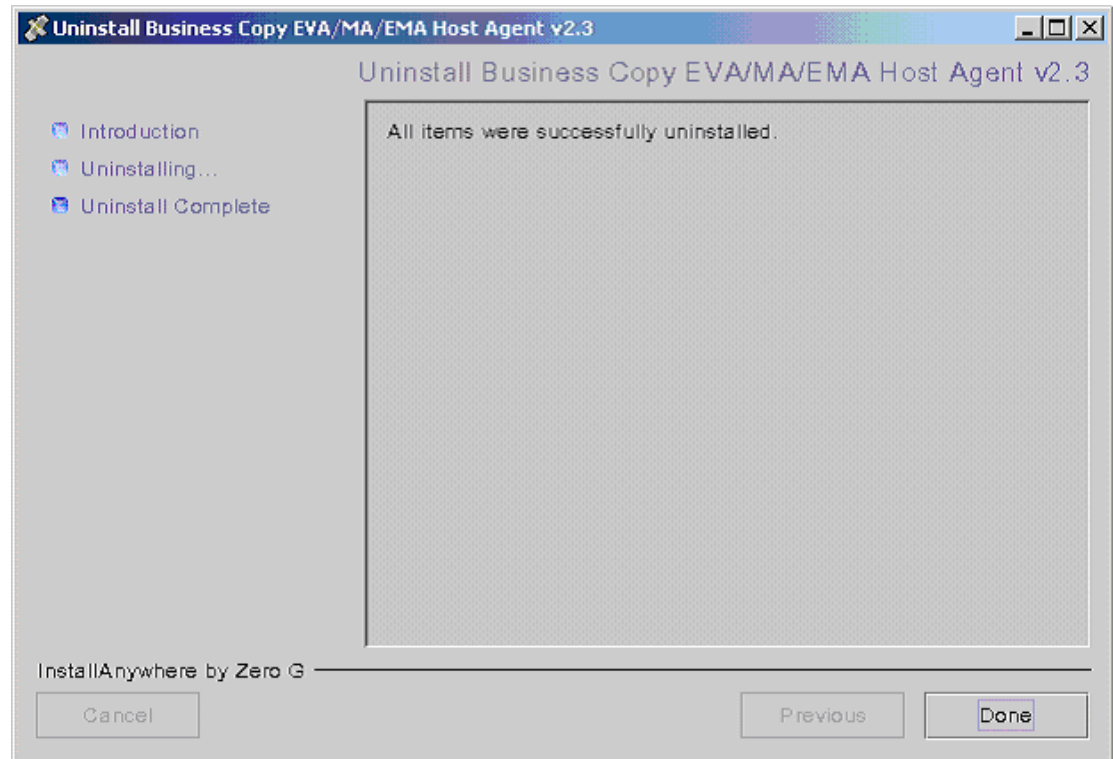


Figure 21: Uninstall Business Copy host agent complete

5. Click **Done** to exit setup.

The BC host agent is now removed from this host computer.

Completing the removal

After the BC host agent is removed, the computer can no longer participate in BC jobs. Running any BC job that involves this computer causes the job to fail.

HP recommends planning for the disposition of each BC job that involves this computer. For example:

- Delete the job (if the job will not be valid again).
- Change the job (to eliminate all references to this host computer).
- Leave the job as is (if the job might be used again).

From a BC network perspective, a BC host agent removal is not complete until all impacted BC jobs are resolved.

glossary

This glossary defines terms that are used in this guide or are related to BC.

BC environment

A SAN environment in which Business Copy replication features are available. BC features can be available through various means, such as: storage managers, BC server and jobs, BC host agents, command line interfaces, and script files.

BC network

The portion of a SAN that consists of a BC server connected via LAN to BC-enabled host computers.

BC server platform

An SMA or SMS with BC server software installed.

See also [Storage Management Appliance](#) and [Storage Management Server](#).

daemon

Diagnostic and Execution Monitor. Pronounced “demon.” A program usually associated with a UNIX system that performs a utility (housekeeping or maintenance) function without being requested or even known by the user.

host

In networked storage, a computer that can perform I/O with a storage array. In general networking, any computer on a network that provides a service.

host agent

In a client/server system, a program that performs information gathering or processes tasks on behalf of a client or server. Agents often communicate with other agents to perform a collective task on behalf of the user.

host, BC-enabled

A host computer that has BC host agent software installed. Compare to standard host.

instance

The presence of a program or set of related programs in a computer or storage system.

job (BC job)

A file created by BC that represents a user request to perform a task or series of tasks. For example, the BC job named `sales_daily_backup` might:

1. Replicate virtual disks to create BCVs.
2. Mount the BCV on a server.
3. Start the tape backup of the BCV. Jobs can be created and run from the GUI, the BC command line (EVMCL), script files, or a scheduler.

OpenView

An HP line of software products that provides storage management solutions, data protection and recovery, automatic performance tuning, storage virtualization, and other features for multivendor storage environments.

SAN

Storage Area Network. A dedicated, high-speed network of storage devices that are available to servers on a LAN or WAN. As storage devices are added to the SAN, they become accessible to the servers in the larger network.

server

A computer or program that provides a service to other computers in a client/server system. Servers often run continuously, waiting for requests from clients.

SMA

See [Storage Management Appliance](#).

SMS

See [Storage Management Server](#).

storage manager

A Web-based storage environment manager that enables a user to configure and monitor MA/EMA or EVA controllers. The HSG Element Manager resides on the Storage Management Appliance (SMA); Command View EVA resides on the BC server platform.

Storage Management Appliance

SMA. A host-independent server product designed to connect directly to the SAN fabric. The SMA provides a centralized point for managing and monitoring SAN elements, including HP switches and storage arrays. SMA software installed on the appliance provides a GUI interface for accessing the monitored SAN environment. The SMA software also provides a launch site for a variety of value-added HP OpenView applications and provides navigation links to directly manage storage components on the SAN.

Storage Management Server

SMS. Any HP supported hardware-software platform that is not connected to the SAN fabric and that does not serve as a storage host. SMS software installed on a platform provides a GUI interface for accessing the monitored SAN environment.

StorageWorks

An HP line of hardware and software storage solutions that provides storage management solutions, data protection and recovery, automatic performance tuning, storage virtualization, and other features for multivendor storage environments.

unit (MA/EMA only)

In StorageWorks storage systems, an identifier that the controller uses when a container is mounted on a host computer. For example, the unit identifier DI could represent a RAID 0+1 striped mirror set that is mounted on a host computer. StorageWorks disk units begin with the letter D and tape units begin with the letter T.

virtual disk (EVA only)

In StorageWorks storage systems, a simulated disk that is created from physical disks in a storage array for use by hosts.

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